

RECENSION OF THE GENUS MALACOMELES (ROSACEAE)

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ABSTRACT

A recension of the mostly Mexican genus *Malacomeles* is rendered. Five species are recognized, two of these, **M. pringlei** (Koehne) B.L. Turner, **comb. nov.** and **M. psilantha** (C. K. Schneider) B.L. Turner, **comb. & stat. nov.**, elevated to specific status from varietal rank. A key to the taxa is provided, along with distribution maps. *Phytologia* 93(1):99-106 (April 1, 2011)

KEY WORDS: *Malacomeles*, Rosaceae, Mexico

MALACOMELES (Decne.) G.N. Jones

Unarmed shrubs or small trees to 8 m high. Leaves simple, alternate, petiolate, pinnately veined, entire to denticulate, the surfaces glabrous to variously pubescent. Flowers regular, perfect, corymbose to paniculate, bracteate; hypanthium campanulate to urceolate; calyx 5-lobed, persistent, reflexed in fruit; petals 5, white or somewhat rosy, usually wider than long; stamens ca 20, inserted on the calyx rim; styles 3-5, free to the base; ovary inferior, 3-5 loculate, each locule with 2 ovules; fruit a 6-10 loculate pome with 1 seed in each locule; seeds brown, flattened, smooth. **TYPE SPECIES:** *Malacomeles denticulata* (Kunth) G.N. Jones

Key to species

1. Pedicels glabrous; larger leaf-blades mostly 1.0-1.5 times as long as wide, their apices markedly denticulate, under-surfaces sparsely to moderately puberulent; Chihuahua, Coahuila, Nuevo Leon and closely adjacent Trans-Pecos, Texas.....**M. pringlei**
1. Pedicels to some extent pubescent; larger leaf-blades mostly 1.5-6.0 times as long as wide, their apices only weakly dentate, if at all, the under surfaces mostly densely puberulent; central Mexico to Guatemala.....(2)
2. Larger leaves mostly 1-3 cm long, broadly obtuse and sparsely dentate at apex.....**M. denticulata**
2. Larger leaves mostly 3-10 cm long, scarcely dentate, if at all.....(3)
3. Leaf-blades mostly 6-10 cm long, acute to broadly obtuse at apices, Nuevo Leon and Tamaulipas.....**M. paniculata**
3. Leaf-blades mostly 3-6 cm long, broadly rounded to obtuse at apices.....(4)
4. Calyces and outer receptacles densely pubescent; Chiapas, Guatemala.....**M. nervosa**
4. Calyces and outer receptacles glabrous; north-central Mexico to Oaxaca.....**M. psilantha**

MALACOMELES DENTICULATA (Kunth) G.N. Jones, Madrono 8: 36. 1945.

Cotoneaster denticulata Kunth, in H.B.K. 1823

Mespilus denticulata (Kunth) Spreng. 1825

Nagelia denticulata (Kunth) Lindl. 1845

Amelanchier denticulata (Kunth) K. Koch 1869

Crataegus minor Sesse & Moc. 1887

Crataegus inermis Sesse & Moc. 1887

TYPE: MEXICO. HIDALGO: Mpio. Actopan, Actopan, Bonpland s.n.

Nue, Zac, San, Que(?), Hid, Mex, Pue and Oax, gypseous or calcareous soils, 500-1600 m; flowering: Jul-Nov

Shrubs, mostly 1-4 m high; occurring with or near *M. psilantha*, and presumably forming hybrids with the latter upon occasion.

Jones (1945) included *M. pringlei* within the fabric of this species, the latter readily distinguished by a number of characters, as noted in the above key and discussed below.

MALACOMELES NERVOSA (Decne.) G.N. Jones, Madrono 8: 38. 1945.

Cotoneaster nervosa Decne. 1874

Amelanchier denticulata var. *nervosa* (Decne.) C. K. Schneid. 1906

Nagelia denticulata var. *nervosa* (Decne.) C. K. Schneid. 1907

TYPE: MEXICO. CHIAPAS: "Regno Mexicano, Prov. Chiapa." Feb. 1840, *Linden s.n.*

Cps and Guatemala,, 1300-2000 m; flowering: all seasons

Shrubs or small trees to 6 m high. Much resembling *M. psilantha* but readily distinguished by the above key characters. Occasional plants have markedly denticulate leaves.

MALACOMELES PANICULATA (Rehder) J.B. Phipps, Canad. J. Bot. 68: 2234. 1990.

Amelanchior paniculata Rehder

TYPE: MEXICO. Nuevo Leon: Mpio. Galeana, "ca 15 mi s.w. of Galeana." 9 May 1934, *C.H. & M.T. Mueller 282.*

Nue and Tam, calcareous or gypseous soils, 1500-2500 m; flowering: Nov-Feb.

Large shrubs or small trees, mostly 3-8 m high; resembling *M. psilantha* and occurring with or near the latter upon occasion, but readily distinguished by its larger, less rounded leaves, as noted in the above key. Although the two taxa frequently grow in close proximity, hybrids between these have not been detected

Jones (1945) placed *M. paniculata* within his broad concept of *M. nervosa*, but Phipps accepted its specific status, as do I. According to label data, the former is a small tree occurring at higher elevations and flowering mostly in late fall and early spring. James Henrickson (by annotation, TEX) also accepted its specific status.

/ **MALACOMELES PRINGLEI** (Koehne) B.L. Turner, **comb. nov.**
Based upon *Amelanchier pringlei* Koehne, Gattun. Pomac., in Wissen. Beil. Progr. Falk.- Real. Berlin 95: 25. 1890.

Chi, Coa and Nue, mostly calcarious soils, 700-1600 m;
flowering: Mar-Jul.

Shrubs mostly 1-3 m high; resembling *M. denticulata*, but readily distinguished by the characters called to the fore in the above key. In Nue it occurs with or near *M. psilantha* and probably forms hybrids with that taxon upon occasion.

James Henrickson (by annotation, TEX) also recognized the specific status of this taxon, but Jones (1945) treated it within his broad concept of *M. denticulata*.

/ **MALACOMELES PSILANTHA** (C. K. Schneid.) B.L. Turner,
comb. & stat. nov.
Based upon *Amelanchier denticulata* var. *psilantha* C. K. Schneid., Ill. Handb, Laubh. 1: 743. 1906.
Nagelia denticulata var. *psilantha* (C. K. Schneid.) C. K. Schneid., 1907

TYPE: MEXICO. TAMAULIPAS: Mpio. Tula, Tula, Gregg 599.

s Coa, Nue, sTam, s Dur, San, Gua, Que, Ver, Pue and Oax,
various soils. 700-1500 m; flowering: Aug- Dec.

Shrub 1-4 m high; closely related to *M. denticulata* and *M. nervosa*, but seemingly distinct from both, as noted in the above key.

Jones (1945) failed to recognize *M. psilantha*, placing this within his broad concept of *M. nervosa*. James Henrickson (by annotation, TEX), treated it as a variety of the latter. I think it best treated at the specific level, for it is markedly distinct from the

geographically isolated, *M. nervosa*, and possessed of well-marked distinguishing characters.

ACKNOWLEDGEMENTS

Distribution maps (attached and alphabetically) are based upon specimens on file at LL-TEX. My colleague A. M. Powell provided helpful suggestions on the paper itself.

LITERATURE CITED

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- Phipps, J.B., K.R. Robertson, P.G. Smith and J.R. Roher. 1990. A checklist of the subfamily Maloideae (Rosaceae). Canad. J. Bot. 68: 2209-2269.







